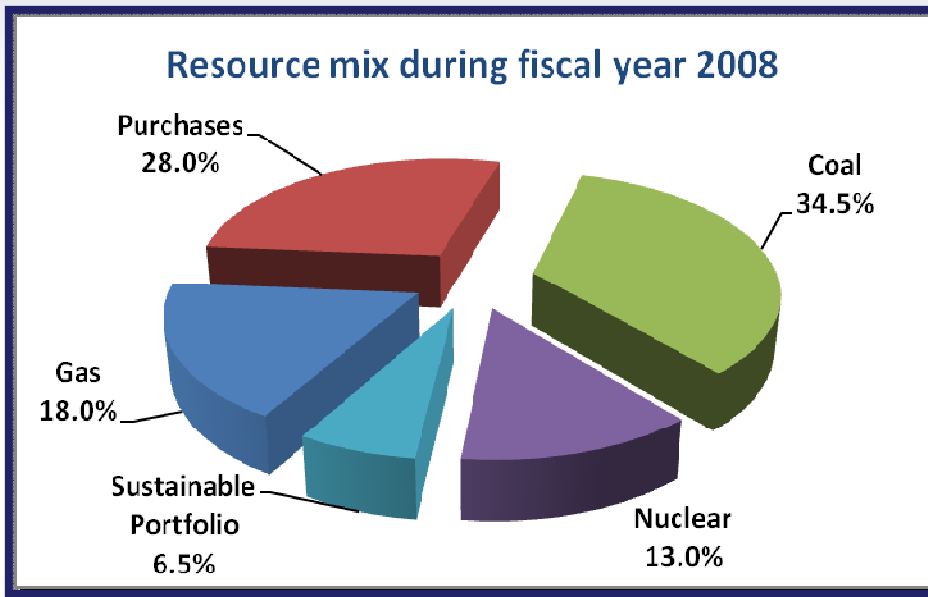


EarthWise Solar Incentive Program

Chico Hunter
Program Manager, Sustainability Initiatives & Technologies

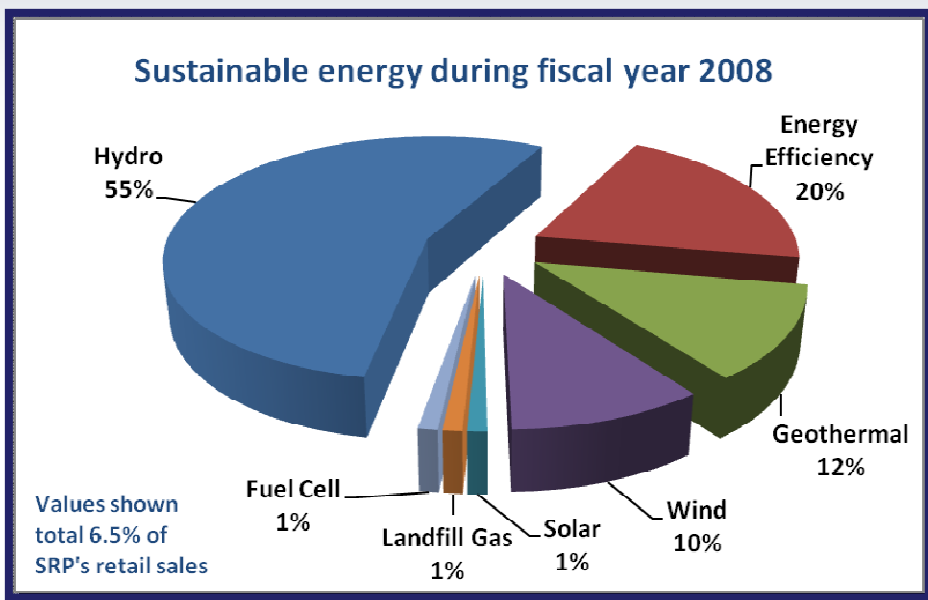
August 11, 2009

SRP Generating Portfolio



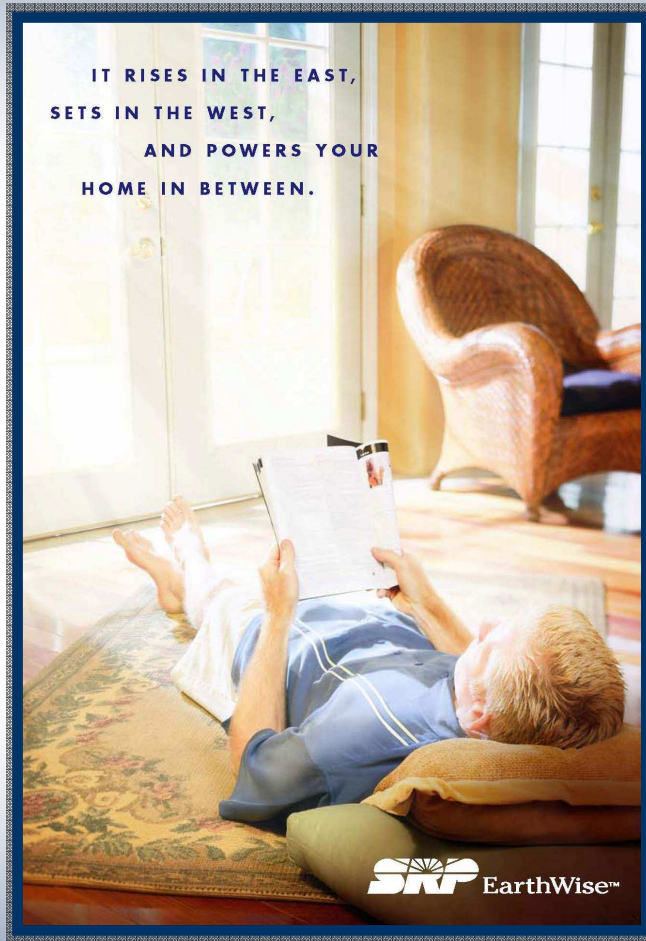
- **Third Largest Municipal Utility in the U.S.**
- **Most generated electricity from coal and gas**
- **Sustainable Portfolio 6.5% of mix**
- **Peak demand of 6,800 MW in late July at about 6:00pm.**

Sustainable Portfolio Overview



- **Board approved voluntary program**
- **15% of retail sales from renewable resources and energy efficiency by 2025**
- **Currently Renewables account for 6.5% of SRP's retail sales**

SRP EarthWise Solar Incentives



- **Launch date: August 2004**
- **Incentives: Solar electric and solar water heating systems for residential and commercial customers**
- **Incentive is payment for “green credits” to help meet portfolio goal**

Residential Solar Electric Incentive



- **\$2.70/Watt (or \$2,700/kW)**
- **Size limitation – 5 kW**
- **Must use licensed Arizona contractor**
- **Interconnection with SRP's electrical grid required**
- **Net metering available**

Residential Solar Water Heating Incentive



- **\$0.50/installed kWh (kilowatt hour) of energy savings, based on a OG-300 rating from the Solar Rating and Certification Corporation**
- **No size limitations**
- **Must be OG-300 rated by SRCC**
- **Must use licensed Arizona contractor**

Typical Cost for Residential Systems

Residential Solar Electric

Size	Typical Cost	SRP Solar Incentive	AZ Tax Credit	Fed Tax Credit	Net Cost	Annual Savings	Simple Payback
5 kW	\$35,000	\$13,500	\$1,000	\$6,450	\$14,050	\$720	20 years

Residential Solar Water Heating System

OG-300 Rating	Typical Cost	SRP Solar Incentive	AZ Tax Credit	Fed Tax Credit	Net Cost	Annual Savings	Simple Payback
2,600 kWh	\$5,000	\$1,300	\$1,000	\$1,110	\$1,590	\$234	7 years

AZ State Tax Credit: 25%, \$1,000 cap

Federal Tax Credit: 30%, no cap

Commercial Solar Electric Incentive



- **\$2.25/Watt (or \$2,250/kW) up to \$450,000**
- **Incentive based on expected energy generation as verified with a 30-day performance test**
- **Must use licensed Arizona contractor**
- **Interconnection with SRP's electrical grid required**
- **Buyback service rider available**

Typical Cost for Commercial Systems

Small Commercial Solar Electric

Size	Typical Cost	SRP Solar Incentive	AZ Tax Credit	Fed Tax Credit	Net Cost	Annual Savings	Simple Payback
20 kW	\$140,000	\$45,000	\$14,000	\$42,000	\$39,000	\$2,560	15 years

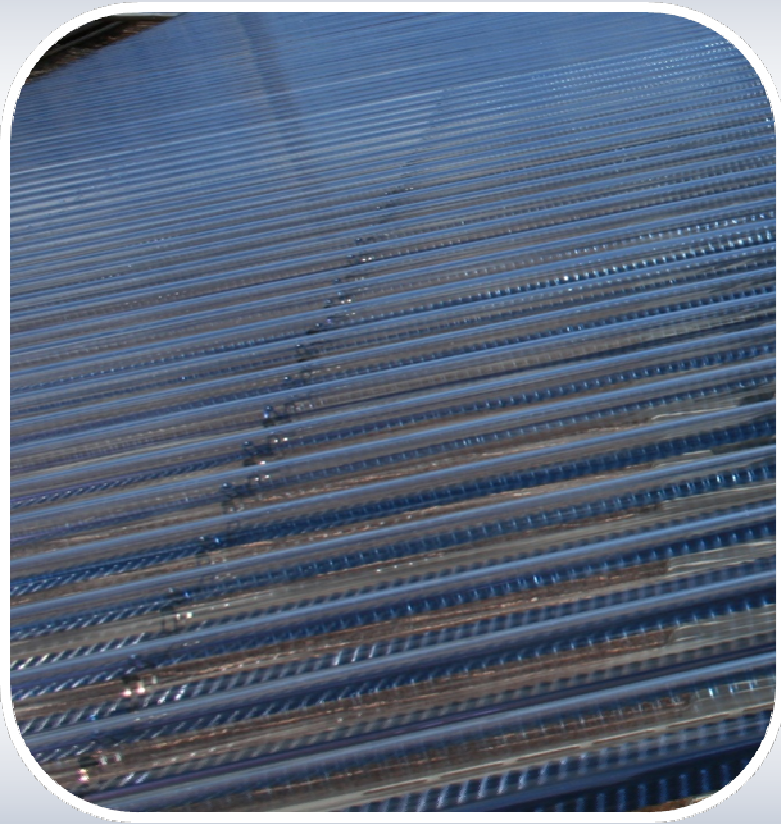
Large Commercial Solar Electric

Size	Typical Cost	SRP Solar Incentive	AZ Tax Credit	Fed Tax Credit	Net Cost	Annual Savings	Simple Payback
100 kW	\$700,000	\$225,000	\$25,000	\$210,000	\$240,000	\$12,800	19 years

AZ State Tax Credit: 10%, \$25,000 cap

Federal Tax Credit: 30%, no cap for solar electric

Commercial Solar Water Heating Incentive



- **\$0.50/installed kWh (kilowatt hour) of energy savings, based on metered first year energy savings, up to \$250,000**
- **Must use licensed Arizona contractor**

Typical Cost for Commercial Systems (Con't)

Commercial Solar Water Heating System

Energy Production	Typical Cost	SRP Solar Incentive	AZ Tax Credit	Fed Tax Credit	Net Cost	Annual Savings	Simple Payback
81,000 kWh/year	\$90,000	\$40,500	\$9,000	\$27,000	\$13,500	\$3,512	4 years

AZ State Tax Credit: 25%, \$1,000 cap

Federal Tax Credit: 30%, no cap

Solar “Rules of Thumb”

Ideal Tilt	30°
Ideal Orientation	Due South
Shading	None
Annual Energy	1600 kWh per 1 kW-DC
Typical Roof Space	160 sq. ft. per 1 kW-DC
No tilt system	11% less energy
Covered Parking	1-2 kW per parking space

- Energy estimated using Clean-Power Estimator
- Roof space may vary depending on tilt and solar panel type

Third Party Ownership of Solar

- **Schools, non-profits, cities who can't use tax credits**
 - Or taxable entities who don't want capital expense
- **3rd party solar company**
 - Installs solar on your building
 - Owns and operates system
 - 3rd party uses tax credits
 - Charges you lease payment
- **SRP customer**
 - Gets electricity from system to reduce SRP bill
 - Avoids upfront capital cost
 - Indirectly benefit from tax credits

More Information

For more information on the SRP EarthWise Solar Energy Program:

■ Residential Solar Energy Programs:

www.srpnet.com/solar

■ Commercial Solar Energy Programs:

www.srpnet.com/solarbiz

■ Contact SRP EarthWise Solar Energy Program

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